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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/581,332	08/28/2000	Sylvain Chevreau	RCA90215	4067

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Joseph S Tripoli
Thomson Multimedia Licensing Inc
CN 5312
Princeton, NJ 08543-0028

EXAMINER

KIM, CHONG R

ART UNIT PAPER NUMBER

2623

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/581,332

Applicant(s)

CHEVREAU ET AL.

Examiner

Charles Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 1, 2004 has been entered.

Response to Amendment and Arguments

2. Applicant's amendment filed on June 1, 2004 has been entered and made of record.
3. In view of applicant's amendment, the claim objections are withdrawn.
4. In view of applicant's amendment, the 112 second paragraph rejections are withdrawn.
5. Applicant's arguments have been fully considered, but they are not deemed to be persuasive for at least the following reasons.

Applicants argue (page 6) that their claimed invention (claim 9) differs from the prior art because "Friedman clearly fails to disclose the authentication of the taking of pictures, but instead merely authenticates the picture taking apparatus itself". The Examiner disagrees. Friedman explicitly states that his system is used for the authentication of digital image files obtained from a digital camera (col. 4, lines 20-24), which is interpreted as being analogous to the authentication of the taking of pictures.

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Applicants further argue (page 8) that “there is no teaching or suggestion in Vu of such an interface circuit as recited in present claim 9 of the instant application”. The Examiner disagrees. Vu explains that the smart cards can be implemented not only for password validation schemes but also for encryption/decryption algorithms (col. 2, lines 15-19). Vu also explains that the physical smart card scheme comprises the smart card and the smart card reader (interface) [col. 2, lines 22-29]. The Examiner notes that the smart card interface allows bi-directional transfer of data during the process of performing the encryption/decryption algorithms. Therefore, since Vu explains that “any application which requires some secret information in order to process data can be adapted to take advantage of a smart card’s secure processing environment” (col. 2, lines 19-22), it would have been obvious to modify the picture taking apparatus of Friedman to include the smart card interface. The suggestion/motivation for doing so would have been to take advantage of the secure processing environment provided by Vu’s smart card.

Claim Objections

6. Claim 16 is objected to because of the following informalities: typographical errors. It appears that the phrase “digital data_” in line 8 was intended to read “digital data”. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Friedman U.S. Patent No. 5,499,294 ("Friedman") and Vu et al., U.S. Patent No. 6,557,104 ("Vu").

Referring to claim 9, Friedman discloses a device for authenticating the taking of pictures made up of digital data comprising a picture taking apparatus (11) associated with a security element (12), the security element comprising a circuit associated with a secret key K specific to the security element and carrying out the signing of at least part of the digital data to give an encrypted output digital data (col. 5, lines 49-65).

Friedman does not explicitly disclose a plurality of detachable security elements specific to users. However, this feature was exceedingly well known in the art. For example, Vu discloses detachable security elements (smart cards) comprising a circuit associated with a secret key for signing digital data to give an encrypted output digital data; the detachable security elements being specific to users (col. 1, lines 34-39, lines 58-67, and col. 2, lines 10-29). Vu also discloses a detachable security element interface (smart card reader) that allows bi-directional transfer of data (col. 2, lines 22-30. Note that the smart card interface allows bi-directional transfer of data during the process of performing the encryption/decryption algorithms, see col. 2, lines 16-19).

Friedman & Vu are combinable because they are both concerned with authentication systems that utilize secret keys for encrypting digital data. At the time of the invention, it would

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have been obvious to a person of ordinary skill in the art to modify the security element of Friedman, so that it comprises the detachable security elements of Vu. The suggestion/motivation for doing so would have been take advantage of the smart card's secure processing environment (Vu, col. 2, lines 19-22). Therefore, it would have been obvious to combine Friedman with Vu to obtain the invention as specified in claim 9.

Referring to claim 10, Friedman further discloses that the security element incorporates a hashing circuit (12A) [col. 5, lines 56-65 and figure 3B]. As noted above, Vu discloses a detachable security element. Therefore, the combination of Friedman and Vu disclose a detachable element that incorporates a hashing circuit.

Referring to claim 11, Vu further discloses that the detachable element is a chip card (col. 1, line 64-col. 2, line 10).

Referring to claim 12, Friedman further discloses that the picture taking apparatus comprises a multiplexing circuit (12C) and a circuit (12A) for hashing at least one first fraction of the digital data in such a way as to generate a first hashed datum, the circuit associated with the secret key K1 carrying out the processing of the first hashed datum in such a way as to generate a signature of the first hashed datum (col. 4, lines 33-37 and col. 5, lines 56-63. Note that the block of the image file is interpreted as a first fraction of the digital data), the signature and the digital data being transmitted to the multiplexing circuit so as to constitute a multiplexed signal (col. 8, lines 53-67).

Referring to claim 13, see the rejection of at least claims 11 and 12 above. Friedman further discloses that the picture taking apparatus comprises a multiplexing circuit (12C), a security element (12) comprising a hashing circuit (12A) carrying out the hashing of at least a

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first fraction of the digital data originating from the picture taking apparatus in such a way as to generate a first hashed datum, and the first hashed datum is processed in the circuit associated with the secret key K1 in such a way as to generate a signature of the first hashed datum (col. 4, lines 33-37 and col. 5, lines 56-63. Note that the block of the image file is interpreted as a first fraction of the digital data), the signature emanating from the security element and the digital data being transmitted to the multiplexing circuit in such a way as to constitute a multiplexed signal (col. 8, lines 53-67).

Friedman fails to explicitly disclose that the security element is a chip card. However, Vu discloses a detachable security element that is a chip card, as noted above (claim 11). Therefore, it would have been obvious to combine the teachings of Friedman and Vu for the reasons stated above.

Referring to claim 14, Friedman further discloses that the picture taking apparatus (11) is a camera head (col. 5, lines 52-54 and figure 3A).

Referring to claim 15, Friedman further discloses that the picture taking apparatus (11) is a photographic apparatus (col. 5, lines 52-54 and figure 3A).

Referring to claim 16, see the rejection of at least claim 1 above. Friedman further discloses a device (20) for authenticating digital data coming from the device for authenticating the taking of pictures, said device for authenticating the digital data comprising a circuit (22) with public key K2 for calculating a new datum on the basis of the signature, a circuit (21) for hashing at least one second fraction of the digital data in such a way as to generate a second hashed datum, a comparison circuit (23) for comparing the new datum with the second hashed

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• datum in such a way as to constitute a signal making it possible to verify the authenticity of the digital data (col. 6, lines 31-52 and figure 3C).

Friedman fails to explicitly disclose a demultiplexer for separating the digital data and the signature. However, Friedman discloses a multiplexing circuit for multiplexing the digital data and the signature at the device for authenticating the taking of pictures (col. 8, lines 53-67). Note that the digital data entering the device (20) will be a multiplexed signal. Friedman also explains that the digital data and the signature are separated prior to being processed by the device (20) [figure 3C. Note that the digital data and the signature are processed separately]. Therefore, the Examiner notes that a demultiplexer is an inherent feature in the device (20) of Friedman, since a multiplexed signal can only be separated it has been demultiplexed by a demultiplexer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Kim whose telephone number is 703-306-4038. The examiner can normally be reached on Mon thru Thurs 8:30am to 6pm and alternating Fri 9:30am to 6pm.

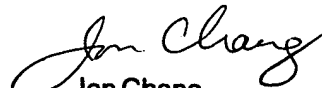
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ck

June 23, 2004


Jon Chang
Primary Examiner